

Applicant: Se-Lee Chang et al. Serial No.: 09/690,271 Filed : October 17, 2000

Page

: 2



composition, while viscosities are increased such that there are problems in operation when the resin composition exceeds 80 weight%.

## Amend paragraph beginning at page 5, line 12 as follows:

Furthermore, the b) polyol preferably has a molecular weight of 100 to 10,000, preferably comprises a repeat unit of -CH<sub>2</sub>CH<sub>2</sub>O- or -CH<sub>2</sub>CH(CH<sub>2</sub>CH<sub>3</sub>)O-, and is preferably selected from the group consisting of polyester polyol, polyether polyol, polycarbonate polyol, polycaprolactone polyol, tetrahydrofuran propyleneoxide ring opening copolymer, ethylene glycol, propylene glycol, 1,4-butanediol, 1,5-pentanediol, 1,6-hexanediol, neopentyl glycol, 1,4cyclohexane dimethanol, bisphenol A, bisphenol F type diol, and a mixture thereof. The polyol preferably comprises 5 to 30 weight% of the photopolymerizable urethane acrylate oligomer composition. More preferably, 10 to 15 weight% of polyester polyol or polycaprolactone polyol, tetrahydrofuran propyleneoxide ring opening copolymer is used.

## Amend paragraph beginning at page 7, line 5 has been amended as follows:

A method for synthesizing the photopolymerizable urethane acrylate oligomer containing polydimethylsiloxane from the photopolymerizable urethane acrylate oligomer composition is as follows. The polyol, polyol compound comprising PDMS structure, and polymerization initiator are put into a reactor and pressure is reduced over 760 mmHg for 30 minutes so that moisture can be removed. This is for removing the possibility of side reactions between moisture and isocyanate. After maintaining the moisture removed mixture at a temperature of 40 to 65 °C, polyisocyanate is added to the mixture, it is stirred at 200 to 300 rpm, and 1/3 of the total catalyst is added. Precautions should be taken since severe heat is generated at this time. The reactant is reacted until -OH peaks on the IR scale have disappeared by maintaining a temperature of 50 to 75 °C after the exothermic reaction. Reaction time is approximately 2 to 3 hours. Acrylate alcohol is then added to the reactant after the reaction, and remained catalysts are also added. Precautions should be taken since severe heat is also generated at this time. The photopolymerizable urethane acrylate oligomer is obtained by reacting the reactant until -NCO peaks on the IR scale have disappeared by increasing the temperature to 60 to 80 °C after the exothermic reaction.